

RUBIN, L.R. (Moskva)

Ionogalvanization and electrophoresis in medical practice. Pol'd.  
i akush. 24 no.11:22-26 H '59. (MIRA 13:2)  
(ELECTROTHERAPEUTICS)

RUBIN, L.R. (Moskva)

How to treat pyorrhea alveolaris. Fel'd. i akush. 24 no.11:63 N '59.  
(MIRA 13:2)

(GUMS--DISEASES)

RUBIN, L.R., BENSON, Ye.V.

Vitamin B<sub>1</sub> and novocaine electrophoresis in treating tenderness  
of the hard dental tissue; preliminary report. Stomatologiya  
37 no.5:64-65 S-O '58 (MIRA 11:11)

1. Iz kafedry terapevticheskoy stomatologii (zav. - prof. Ye.Ye.  
Platonov Moskovskogo meditsinskogo stomatologicheskogo instituta  
(dir. dotsent G.N. Beletskiy).

(TIAMINE)

(NOVOCAINE)

(TEETH--DISEASES)

RUBIN, L.R.

Case of Meizh' trophic edema. Stomatologiya 37 no.1:72 Ja-F '58.  
(MIRA 11:3)

1. Iz Moskovskogo meditsinskogo stomatologicheskogo instituta  
(dir. - dotsent G.N.Beletskiy)  
(NDEMA)

NAGINSKAYA, Izabella Yakovlevna; RUBIN, M., red.; MOLCHANOVA, T., tekhn.red.

[Soluble glass] Zhidkoe steklo. Odesskoe obl. izd-vo, 1958. 36 p.  
(Soluble glass) (MIRA 12:2)

KRAVTSOV, Ivan Stepanovich; RUBIN, M., red.; MOLCHANOVA, T., tekhn.  
red.

[Home canning and preserving of food products] Domashnee kon-  
servirovanie pishchevykh produktov. Odessa, Odesskoe knizhnoe  
izd-vo, 1962. 210 p. (MIRA 16:2)  
(Canning and preserving)

RUBIN, M., red.; MOGILETSKIY, B., tekhn. red.

[Odessa is under construction] Odessa stroitsia. Odessa,  
Odesskoe obl. izd-vo, 1959. 84 p. (MIRA 15:7)  
(Odessa--Apartment houses)  
(Odessa--Construction industry)

PRAKH'YE, Boris Semenovich; RUBIN, M., red.; MOLCHANOVA, T.,  
tekhn. red.

[Truth about the "Promised Land."] Pravda o "zemle obetovan-  
noi." Odessa, Odesskoe knizhnoe izd-vo, 1961. 41 p.

(MIRA 15:7)

(Israel--Relations (General) with Russia))

(Russia--Relations (General) with Israel))

(Israel--Economic conditions)



POCHEPA, Aleksandr Mikhaylovich; RASHKOVSKIY, Mikhail Yefimovich;  
BONDARENKO, Anatoliy Yevgen'yevich; RUBIN, M., red.;  
MOLCHANOVA, T., tekhn. red.

[Operation and repair of television receivers] Eksplua-  
tatsiia i remont televizorov. Odessa, Odesskoe knizhnoe  
izd-vo, 1963. 221 p. (MIRA 17:2)

L 58743-65 EWP(k)/ENT(d)/EWP(h)/EWA(d)/EWP(l)/EWP(v) Pf-4  
ACCESSION NR: AR5002382 8/0271/64/000/010/A014/A014  
621.398.694.4-531.7  
SOURCE: Ref. zh. Avtomat., telamekh. i vychisl. tekhn. Sv. t., Abs. 10A109

19  
B

AUTHOR: Grey, E.; Grossman, A.; Rubin, M.

TITLE: Compensation of temperature increment of resistance in HFN-3 high-temperature  
tensometers

CITED SOURCE: Sb. Vysokotemperat. tenzodatchiki. M., Mashgiz, 1963, 162-169

TOPIC TAGS: tensometer. high temperature tensometer / HFN-3 tensometer

SUB CODE: TD, IE

ENCL: 00

Card 1/1

BAVLI, Georgiy Samoylovich; NASLEDKOV, Ivan Melent'yevich; RUBIN, M.,  
red.; MOLCHANOVA, T., tekhn.red.

[Economical operation is the method of socialist management]  
Rezhim ekonomii - metod sotsialisticheskogo khoziaistvovaniia.  
Odessa, Odesskoe obl.izd-vo, 1958. 37 p. (MIRA 13:1)  
(Odessa--Printing machinery and supplies)  
(Factory management)

KRAVTSOV, Ivan Stepanovich; RUBIN, M., red.; MOLCHANOVA, T., tekhn.red.

[Home preservation of food products] Domashnee konservirovanie  
pishchevykh produktov. Izd.4., ispr. i dop. Odessa, Odesskoe  
knizhnoe izd-vo, 1960. 158 p. (MIRA 13:8)  
(Food--Preservation)

NEZHEVENKO, Grigoriy Semenovich [Nezhevenko, H.], tokar'; RUBIN, M.,  
red.; BELOUS, I. [Bilous, I.], tekhn.red.

[Our institute of progressive experience] Nash robitnychi  
instytut. Odesa, Odes'ke knizhkovе vyd-vo, 1959. 21 p.

(MIRA 13:2)

1. Golova Radi gromads'kogo institutu peredovogo dosvidu Odes'kogo  
zavodu radial'no-sverdlil'nikh verstativ (for Nezhevenko).

(Odessa--Drilling and boring machinery)

(Employees, Training of)

BAVLI, Georgiy Samoylovich, prepodavatel'; NASLEDKOV, Ivan Melent'yevich.  
HUBIN, M., red.; MOLCHANOVA, T., tekhn.red.

[Economizing is a key element of socialist economic management]  
Rezhim ekonomii - metod sotsialisticheskogo khoziaistvovaniia.  
Odesskoe obl. izd-vo, 1958. 37 p. (MIRA 12:2)

1. Direktor zavoda poligraficheskikh mashin "Odespoligrafmash"  
(for Nasledkov).  
(Efficiency, Industrial) (Costs, Industrial)

VADIMOV, G. [Vadymov, H.]; LIKHOVID, M. [Lykhovyd, M.]; RUBIN, M., red.;  
MOLCHANOVA, T., tekhn.red.

[Following the example of Mykola Mamai's brigade] Za pochynom  
bryhady Mykoly Mamaia. Odes'ke obl.vyd-vo, 1958. 49 p.  
(Efficiency, Industrial) (MIRA 12:2)

MIROSHNICHENKO, Klimentiy Petrovich, inzh.; RUBIN, M., red.; MOLCHANOVA, T.,  
tekhn.red.

[Reduction of setup, man, and down time in plants] Sokrashchenie  
vspomogatel'nogo vremeni na proizvodstve. Odesskoe obl.izd-vo,  
1958. 57 p. (MIRA 12:2)  
(Machine-shop practices) (Time study)



*RUBIN, M.*  
RUBIN, M.

Local lore museum of Serebrintsy. Geog. v shkole 20 no.5:61  
S-O '57. (MIRA 10:12)

1.Vinnitskiy oblastnoy institut usovershenstvovaniya uchiteley.  
(Serebrintsy--Museums and schools)

NIKOLAYENKO, Yevgeniy Grigor'yevich, laureat Stalinskoy premii; RUBIN, M.,  
red.; BELOUS, I., tekhn.red.

[The future is born today] Budushchee rozhdaetsia segodnia.  
Odessa, Odesskoe knizhnoe izd-vo, 1960. 23 p.

(MIRA 14:3)

1. Nachal'nik Tsentral'nogo konstruktorsko-tekhnologicheskogo  
byuro (for Nikolayenko).  
(Odessa--Molding (Founding))

KNYAZHITSKIY, Iosif Il'ich; UST'-SHOMUSHSKIY, Georgiy Veniaminovich;  
RUBIN, M., red.

[Machine tools of the future] Stanki budushchego. Odessa,  
Odesskoe knizhnoe izd-vo, 1960. 79 p. (MIRA 15:4)  
(Machine tools—Numerical control)

ПОЧЕПА, Aleksandr Mikhaylovich; RASHKOVSKIY, Mikhail Yefimovich; BONDARENKO, Anatoliy Yevgen'yevich; RUBIN, M., red.; MOLCHANOVA, T., tekhn. red.

[Use and repair of television receivers] Ekspluatatsiia i remont televizorov. 2., izd. Odessa, Odesskoe knizhnoe izd-vo, 1961. 145 p.  
(MIRA 14:10)

(Television—Receivers and reception)

DANCHENKO, Aleksey Yevgen'yevich, deputat Verkhovnogo Soveta SSSR;  
RUBIN, M., red.; MOLCHANOVA, T., tekhn. red.

[Workers of the Black Sea region] Truzheniki Chernomor'ia.  
Odessa, Odesskoe knizhnoe izd-vo, 1959. 78 p. (MIRA 15:6)

1. Nachal'nik Chernomorskogo parokhodstva, Odessa (for Danchenko).  
(Black Sea—Merchant seamen)

MOROZOV, N.G.; uchitel' (selo Klyuchevki, Chelyabinskoy oblasti);  
PRUDNIKOV, S., uchitel'; GORB, Ye.V.; SIDORENKO, B.P., uchitel';  
LAZAREV, V.; SVIDUNOVICH, A., uchitel'; RUBIN, M., metodist;  
VASIL'YEV, Ye.T., uchitel'

Letters to the editors. Geog. v shkole 23 no. 6:67-69 N-D  
'60. (MIRA 13:11)

1. 4-ya shkola shkoly g.Nevelya (for Prudnikov).
  2. Direktor 16-y shkoly g. Vinnitsay (for Gorb).
  3. 81-ya shkola g.Baku (for Sidorenko).
  4. 11-ya shkola g.Tyumeni (for Lazarev).
  5. Velemichskaya shkola Brestskoy oblasti (for Svidunovich).
  6. Vinnitskiy oblastnoy institut usovershenstvovaniya vrachey (for Rubin).
  7. Sanitorno-lesnaya shkola poselka Klyuchi, Kamchatskoy oblasti (for Vasil'yev).
- (Geography)

LIPTUGA, Ivan Vasil'yevich; RUBIN, M., red.; MOLCHANOVA, T., tekhn.  
red.

[Scouts of the future] Razvedchiki budushchego. Odessa, Odes-  
skoe knizhnoe izd-vo, 1961. 34 p. (MIRA 15:6)  
(Odessa--Socialist competition)  
(Odessa--Industries)

DENISKIN, Boris Ivanovich; RUBIN, M., red.; MOLCHANOVA, T., tekhn. red.

[Putting progressive welding methods to use in industry] Peredovye metody svarki - v proizvodstvo. Odessa, Odesskoe knizhnoe izd-vo, 1960. 39 p. (MIRA 15:6)

1. Nachal'nik tsentral'noy bazovoy laboratorii svarki Odesskogo sovnarkhoza (for Deniskin).

(Welding)



GAYDAYENKO, Ivan Petrovich; RUBIN, M., red.

[Havana, Beirut] Havana, Beirut. Odessa, Knizhnye izd-  
vo, 1963. 135 p. (MIRA 17:6)

YEVGRASHKIN, Ruslan Ivanovich, Geory Sotsialisticheskogo Truda;  
RUBIN, M., red.; MOLCHANOVA, T., tekhn. red.

[Under the flag of the motherland] Pod flagom Rodiny. Odessa,  
Odesskoe knizhnoe izd-vo, 1961. 45 p. (MIRA 16:5)

1. Kapitan parokhoda "Dmitriy Pozharskiy" (for Yevgrashkin).  
(Merchant marine)

RUBIN, M.A., KUCHERUK, V.V., OLSUF'YEV, N.G., and GLAGOLEVA, P.N.

"The Epizooty of Tularemia, Linked to the Formation of Natural Nidi of the Field-Meadow Type", Problems of Regional, General and Experimental Parasitology and Medical Zoology, Vol. 9, 1955.

Division of Parasitology and Medical Zoology, Inst. Epidemiology and Microbiology  
imeni N. F. Gamleys, AMA USSR

Sum. I305

KUKULEVICH, I.L.; RUBIN, M.A.; BAYTINA, A.Ya., kandidat tekhnicheskikh nauk, redaktor.

[Wage organization at local industrial enterprises] Organizatsiia zarabotnoi  
platy na predpriatiakh mestnoi promyshlennosti. Moskva, Gos.izd-vo mestnoi  
promyshl.RSFSR, 1950. 195 p. (MLRA 6:11)

(Wages) (Industry)

| 1ST AND 2ND OBJECTS                                                                                                                                                                                                                                                                                                     |  |  |  |  |  |  |  |  |  | 3RD AND 4TH OBJECTS |  |  |  |  |  |  |  |  |  |
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| PROCESSES AND PROPERTIES INDEX                                                                                                                                                                                                                                                                                          |  |  |  |  |  |  |  |  |  |                     |  |  |  |  |  |  |  |  |  |
| <p><i>Handwritten:</i> 24</p> <p><b>Magyar Technika</b><br/> <b>Hungarian Engineering</b><br/> <b>1950</b><br/> <b>no.11-12 nov.-dec.</b></p> <p><i>Handwritten:</i> 26</p> <p><i>Handwritten:</i> L. I. Kuzulicovs<br/> and M. A. Rubin:<br/> Planning and analysing work under ma-<br/> bers (From the Resistant)</p> |  |  |  |  |  |  |  |  |  |                     |  |  |  |  |  |  |  |  |  |
| <p>ASH-SLA METALLURGICAL LITERATURE CLASSIFICATION</p>                                                                                                                                                                                                                                                                  |  |  |  |  |  |  |  |  |  |                     |  |  |  |  |  |  |  |  |  |

| 1ST AND 2ND ORDERS                                                                                                          |  |  |  |  |  |  |  |  |  | 3RD AND 4TH ORDERS    |  |  |  |  |  |  |  |  |  |
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| PROCESSES AND PROPERTIES INDEX                                                                                              |  |  |  |  |  |  |  |  |  |                       |  |  |  |  |  |  |  |  |  |
| <p><b>H</b></p> <p><b>MAGYAR TECHNIKA — HUNGARIAN ENGINEERING</b></p> <p><b>1950</b></p> <p><b>No. 9, Sept.</b></p>         |  |  |  |  |  |  |  |  |  |                       |  |  |  |  |  |  |  |  |  |
| <p><i>I. L. Kokulevich and M. A. Rubyn: 331,222</i></p> <p>Planning and analysing work involves:</p> <p>VIII. pp. 19-55</p> |  |  |  |  |  |  |  |  |  |                       |  |  |  |  |  |  |  |  |  |
| <p>ASH-SLA METALLURGICAL LITERATURE CLASSIFICATION</p>                                                                      |  |  |  |  |  |  |  |  |  | <p>REGIONAL INDEX</p> |  |  |  |  |  |  |  |  |  |
| <p>REGIONAL INDEX</p>                                                                                                       |  |  |  |  |  |  |  |  |  | <p>REGIONAL INDEX</p> |  |  |  |  |  |  |  |  |  |

BURDEYNYY, Petr Andreyevich [Burdeinyi, P.A.]; RUBIN, Mikhail Borisovich  
[Rubyn, M.B.]; KIR'YAKOV, Yu.F., red.; PIPA, L.D. [Pypa, L.D.],  
red. kart; GORBUNOVA, N.M. [Horbunova, N.M.], tekhn. red.

[Vinnitsa Province; geographical study] Vinnits'ka oblast';  
geografichnyi narys. Kyiv, Derzh. uchbovo-pedagog. vyd-vo  
"Radiants'ka shkola," 1961. 115 p. (MIRA 14:9)  
(Vinnitsa Province—Geography)

SKIPSKIY, P.S., dots., kand. tekhn.nauk; SIMAKOV, I.M., inzh.;  
DIVAKOVA, Ye.K., assisten kand. tekhn. nauk; RUBIN,  
M.G., assistant; VARLAMOVA, V.A., assistant

[Laboratory work on the strength of materials] Laboratornye  
raboty po soprotivleniiu materialov. Gor'kii, 1962. 100 p.  
\_\_\_ [Log of laboratory work on the strength of materials]  
Zhurnal laboratornykh rabot po soprotivleniiu materialov.  
Gor'kii, 1962. 33 p. (MIRA 16:5)

1. Gorki. Gor'kovskiy inzhenerno-stroitel'nyy institut. Ka-  
fedra stroitel'noy mekhaniki.  
(Strength of materials)



BULANOV, N.G.; KUPRIYANOVA, L.V.; TSUKERMAN, R.V.; BUDNYATSKIY,  
D.M.; GEL'TMAN, A.E.; KOSTOVETSKIY, D.L.; PISKAREV, A.A.;  
TARANIN, A.I.; KORNEYEV, M.I.; MOISEYEV, G.I.; KENDYS,  
P.N.; KIRPICHEV, Ye.F.; RUBIN, M.M.; SOKOLOV, N.V.;  
SHCHERBAKOV, V.A.; KOVALEV, N.N.; BELOV, A.A.; SEREBRYAKOV,  
G.M.; SATANOVSKIY, A.Ye., red.; RODDATIS, K.F., red ;  
KORKHOVA, V.I., red.; CHEREPENNIKOV, B.A., red.; KOGAN,  
F.L., tekhn. red.

[Manufacture of power machinery abroad] Energeticheskoe ma-  
shinostroenie za rubezhom. Moskva, 1961. 583 p.

(MIRA 16:8)

1. Moscow. Tsentral'nyy institut nauchno-tekhnicheskoy in-  
formatsii mashinostroyeniya.

(Electric power plants--Equipment and supplies)

RUBIN, M.M., kandidat tekhnicheskikh nauk.

Basic results of investigations of the burner chamber of the  
TP-230-3 boiler with liquid ash removal. Energomashinostroenie  
3 no.9:9-13 S '57. (MIRA 10:10)  
(Boilers)

*X. C. L. V. M. M.*  
BARSHTEYN, I.K., kandidat tekhnicheskikh nauk.; RUBIN, M.M., kandidat tekhnicheskikh nauk.; SIZIN, N.R., inzhener.; SHAMRAYEVSKIY, I.M.; inzhener.; SHUTOV, V.I., inzhener.; YAKUBENKO, A.A., inzhener.

Adjustment and investigation of TP-230-3 boilers with slag-tap furnaces.  
Elek. sta 27 no.10:4-12 0 '56. (MIRA 9:12)  
(Boilers)

BARSHTEYN, I.K., kandidat tekhnicheskikh nauk; RUBIN, M.M., kandidat  
tekhnicheskikh nauk.

Operating characteristics for shaft pulverizer furnace with cyclone  
burners. Energomashinostroenie no.9:1-5 S '56. (MLRA 9:10)

(Furnaces) (Combustion)

BARSHTEYN, I.K., kandidat tekhnicheskikh nauk; RUBIN, M.M., kandidat  
tekhnicheskikh nauk.

Adjustment of shaft-mill furnaces with overfire-air ports. Elek.sta.  
27 no.3:7-12 Mr '56. (MLRA 9:8)  
(Boilers)

BARSHTEYN, I.K., kandidat tekhnicheskikh nauk; RUBIN, M.M., kandidat tekhnicheskikh nauk

Installation of mixing headers in the superheater of the TP-230-1 boiler. Elek.sta.26 no.8:49-52 Ag'55. (MLRA 8:12)  
(Superheaters)

AID P - 3334

Subject : USSR/Power Engineering

Card 1/1 Pub. 26 - 20/28

Authors : Barshteyn, I. K. and Rubin, M. M., Kand. Tech. Sci.

Title : Mounting of centrifugal collectors in the superheater of a TP-230-1 boiler

Periodical : Elek. sta., 8, 49-52, Ag 1955

Abstract : The authors discuss the decrease in temperature and distribution of steam leaving the superheater and state that a more uniform distribution of steam temperatures is achieved in boilers equipped with turbulent burners. The use of centrifugal collectors is strongly emphasized. Curves show temperature distribution in waterwalls and in the boiler and data on superheater operation. Nine diagrams.

Institution : None

Submitted : No date

KANORSKIY, I.D.; RUBIN, M.P.

Intravital diagnosis of periarteritis nodosa. Sovet. med.  
26 no.5:120-123 My'63 (MIRA 17:1)

1. Iz kafedry obshchey khirurgii (zav. - chlen-korrespon-  
dent AMN SSSR prof. V.I. Struchkov) I Moskovskogo ordena Leni-  
na meditsinskogo instituta imeni I.M.Sechenova i gorodskoy  
klinicheskoy bol'nitsy No.23 imeni Medsantrud (glavnyy vrach  
A.N.Lobanova).



TUMANSKIY, V.K., doktor med.nauk; RUBIN, M.P.

Intestinal infarction of venous origin; a survey of the literature.  
Sov.med. 26 no.7:67-71 J1 '62. (MIRA 15:11)

1. Iz kafedry obshchey khirurgii lechebnogo fakul'teta (zav. --  
chlen-korrespondent AMN SSSR prof. V.I.Struchkov) i Moskovskogo  
meditsinskogo instituta imeni I.M.Sechenova i Gorodskoy kliniche-  
skoy bol'nitsy No.23 imeni Medsantrud (glavnyy vrach A.N.Lobanov).  
(INTESTINES---INFARCTION) (MESENTERIC VEIN---DISEASES) (EMBOLISM)

RUBIN, M.V.; BORODINA, N.N., red.; BARANOV, Yu.V., tekhn. red.;  
SHVETSOV, S.V., tekhn. red.

[Manual for practical work on the strength of materials]  
Rukovodstvo k prakticheskim zaniatiyam po soprotivleniiu  
materialov. 4. izd. Moskva, Rosvuzizdat, 1963. 488 p.  
(MIRA 16:10)

(Strength of materials--Handbooks, manuals, etc.)

RUBIN, N.

Use of asbestos cement wastes. Stroim. mat. 4 no. 7:22 J1 '58.  
(MIRA 11:7)

1. Starshiy laborant laboratorii stroitel'nykh materialov  
nauchno-issledovatel'skogo instituta Mosstroya.  
(Asbestos cement)

L 1232-66 EWT(m)/EPA(w)-2/EWA(m)-2 IJP(c) GS  
ACCESSION NR: AT5007970 S/0000/64/000/000/0970/0975 85  
24  
841

AUTHOR: Kazanskiy, G. S.; Kuznetsov, A. B.; Mikhaylov, A. I.; Tserenkov, A. P.;  
Chekhlov, K. V.; Rubin, N. B.

TITLE: Certain special features governing the adjustment of the acceleration re-  
gime on the OIYaI 10-GeV synchrophasotron M

SOURCE: International Conference on High Energy Accelerators. Dubna, 1963.  
Trudy. Moscow, Atomizdat, 1964, 970-975

TOPIC TAGS: high energy accelerator, proton accelerator, linear accelerator

ABSTRACT: The oscillogram form of the signals recorded by inductive electrodes in the quasi-betatron regime is due to the subsequent entrapment of the particles into acceleration. The signals are proportional to the variation in the density (e. g. of the order of  $2.5 \cdot 10^{10}$  to  $5.2 \cdot 10^{10}$  protons per pulse) of the particles in the quasi-betatron state in the case of multi-rotation injection at the azimuth of the "vertical" induction electrodes (Kazanskiy, G. S., et al. *Atomnaya energiya* 14, 153 (1963)). The oscillograms also indicate the state corresponding to particle storage in the accelerator chamber. Measurements show that a small group of particles, comprising about 0.5% ( $5 \cdot 10^9$  protons per pulse) of the total number of particles.

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ACCESSION NR: AT5007970

icles injected, takes part in the formation of the signal. The frequencies in the central part of the signal correspond to the frequency of revolution or are multiples of it. The appearance of such frequencies can explain the presence of the charge front during input of the particles into the accelerator chamber (or the formation of the drop in density at the moment of intensive losses at the beginning of injection), and also the amplitudinal nonequilibrium of the injection current from the linear accelerator, if there occur here azimuthal inhomogeneities whose extent is less than the perimeter of the equilibrium orbit. The connection between the form of the high-frequency signal under consideration and the subsequent entrapment of the particles into the synchrotron state is characteristic. If the oscillations close to the "rear" signal front formed by the particles with amplitudes of betatron radial oscillations are damped, then the effectiveness of entrapment decreases, and in the absence of such damping the effectiveness is greater, as shown by the oscillograms. In the case of the "differential" method of signal recording with induction electrodes, signals are observed whose form can be modified from sinusoidal to a series of discrete pulse-formed signals. In most cases (excluding those where the values  $n$  are resonant) the general picture represents the result of superposition of this and another group of signals, as seen on os-

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ACCESSION NR: AT5007970

cillograms. The present report discusses the following pertinent topics: quasi-betatron state; synchrotron state; system of high-frequency accelerator supply; programming and adjustment of regimes suitable for physical experiments. The authors show that, by combining the various methods of beam output against a target and applying one or another method of selection, one can utilize intelligently the intensity in the accelerator cycle, thus ensuring a combination of different physical experiments. Orig. art. has: 6 figures, 6 formulas.

ASSOCIATION: Ob'yedinennyy institut yadernykh issledovaniy, Dubna (Joint Institute of Nuclear Research)

SUBMITTED: 26 May 64

ENCL: 00

SUB CODE: NP

NO REF SOV: 004

OTHER: 000

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Card 3/3

~~A. B. 14, N. B.~~  
KOLOMENSKIY, A.A.; RUBIN, N.B.

Charged particle accelerators. Priroda 44 no.11:3-12 N '55.  
(MLRA 9:1)

(Particle accelerators)

*RUBIN, N. B.*

AUTHORS: Kotov, V. I. , Rubin, N. B. 57-2-24/32

TITLE: Eigenfunctions of the Equation for Free Vibrations of a Feebly-Focusing Accelerator With a Slit Magnet, and Their Use  
(Sobstvennyye funktsii uravneniya svobodnykh kolebaniy slabo-fokusiruyushchego uskoritelya s razreznym magnitom i ikh primeneniya)

PERIODICAL: Zhurnal Tekhnicheskoy Fiziki, 1958, Vol. 28, Nr 2, pp.365-379 (USSR)

ABSTRACT: The purpose of the present work was an investigation of the eigenfunctions of feebly-focusing accelerator with a slit magnet, as well as their use in the investigation of the influence of fundamental types of excitation of a magnetic field upon the free vibrations in linear approximation. Special attention was in this connection paid to the fact of showing the effectiveness of the method of eigenfunction. For this reason the authors tried to treat the linear resonances as exhaustively as possible. Problems of the "width" of the resonances, the limits of the usability of the linear resonance theory etc.

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57-2-24/32

Eigenfunctions of the Equation for Free Vibrations of a Feebly-Focusing Accelerator With a Slit Magnet, and Their Use

were not treated. The complete investigation of these problems according to the method of eigenfunctions will be the subject of a separate paper. Part of the material of the present paper is contained in the reports of the year 1954 (references 7 and 8). - The analytic form of the eigenfunctions of the equation for free (betatron) vibrations of a feebly-focusing accelerator with a slit magnet is derived here. The qualities of these eigenfunctions are shown and the essential difference against the functions of a ring-accelerator with regard to the period are specially emphasized. According to the method of series expansions for excitations with respect to eigenfunctions the authors investigated the influence of the distortions of the vertical component of the magnetic field and the mean surface of the magnet upon free vibrations in the absence of a resonance, as well as the nature of the building-up of vibrations in the case of exact resonance. According to the same method the authors investigated the parametric resonance and the linear resonance of the combination of the vertical and radial free oscillations in the case of falling induction of the magnetic field which correspond to the exact resonance. M. S. Rabinovich

Card 2/3

57-2-24/32

Eigenfunctions of the Equation for Free Vibrations of a Feebly-Focusing Accelerator With a Slit Magnet, and Their Use

placed the topic at the authors' disposal. There is 1 figure, and 11 references, all of which are Slavic.

SUBMITTED: May 20, 1957

AVAILABLE: Library of Congress

1. Magnetic fields-Excitation 2. Magnetic fields-Distortion

Card 3/3

*RUBIN N. B.*

AUTHORS: Kotov, V. I., Kuznetsov, A. B., Rubin, N. B. 53-2-1/5

TITLE: The Physical Foundations of Modern Resonance Accelerators  
(Fizicheskiye osnovy sovremennykh rezonansnykh uskoriteley)

PERIODICAL: Uspekhi Fizicheskikh Nauk, 1958, Vol. 64, Nr 2, pp. 197-272  
(USSR)

ABSTRACT: At present accelerators are projected or under construction, which permit the acceleration of particles up to energies of 50 BeV. The present survey gives a detailed treatment of autophasing and the various aspects of its realization. Moreover, the stability of the motion of particles within the magnetic fields of the circular accelerators and the effects of various disturbing factors on this motion are discussed in detail. The first section of the survey discusses a number of rules governing the motion of charged particles in a magnetic field. At the beginning, the simplest case of this motion, that is to say, in a homogenous and with respect to time constant field is computed. The following circumstance is of prime importance: In circular accelerators it is insufficient for the magnetic field only to guarantee a

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The Physical Foundations of Modern Resonance Accelerators

53-2-1/5

circular motion of the particles; this motion must also be stable. The second section deals with automatic phase synchronization. The qualitative analysis of the processes taking place with a constant magnetic field and with constant frequency of the accelerating field strength furnishes the following results: 1. A stable equilibrium motion exists, which corresponds to "exact" resonance. 2. A mean resonance is realized on certain conditions for particles, which do not satisfy the resonance condition, that is to say, that the radii of their instantaneous tracks, the energy and the angular frequency perform oscillations around the resonance values of these quantities. The methods of resonance acceleration of particles corresponding to these considerations proved to be very useful. At first the authors give a qualitative analysis of these methods: The method of the variation with time of the frequency of the accelerating field strength, the simultaneous variation of the magnetic field and of the frequency of the accelerating field strength. This is followed by a general investigation of the motion of particles in cyclic resonance accelerators. This motion consists of the following three components:

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The Physical Foundations of Modern Resonance Accelerators

53-2-1/5

1. Rotation of the particles on an equilibrium orbit.
2. Slow radial phase oscillations with the frequency of the accelerating electric field.
3. Fast free oscillations around the instantaneous path, the period of which usually is of the same order of magnitude as the period of the rotating particles.

These three types of motion are eliminated from the general equations and then a number of problems connected with it are discussed. The fourth section deals with a few peculiarities of the operation of the different types of circular resonance accelerators (synchrotron, phasotron, synchrophasotron, microtron). The last two sections give a detailed report on linear accelerators and intensely focusing accelerators. There are 17 figures, 2 tables, and 84 references, 54 of which are Slavic.

AVAILABLE:

Library of Congress

1. Particle accelerators-Development
2. Particle accelerators-Characteristics

Card 3/3

RUBIN, N. B.

Cand Phys-Math Sci - (diss) "Studies of the theory of motion of particles in the synchro-phasotron having weak focussing." /Dubna, 19617. 9 pp; (Joint Inst of Nuclear Studies, Laboratory of Nuclear Problems); 160 copies; price not given; bibliography at end of text (13 entries); (KL, 5-61 sup, 174)

45137

S/089/63/014/002/003/019

B102/B186

24.6730

AUTHORS: Kazanskiy, G. S., Kuznetsov, A. B., Mikhaylov, A. I.,  
Rubin, N. B., Tsarenkov, A. P.

TITLE: Investigation of the beam formation of accelerated particles  
in the proton-synchrotron by means of induction electrodes

PERIODICAL: Atomnaya energiya, v. 14, no. 2, 1963, 153 - 158

TEXT: The beam formation process in the first stage of acceleration at the proton-synchrotron of the Ob'yedinennyy institut yadernykh issledovaniy (Joint Institute of Nuclear Research) in Dubna was studied with the help of electrostatic signal electrodes (Vodop'yanov, Kuzmin, et al., Proc. Intern. Conf. High-Energy Accelerators and Instrumentation, CERN, Geneva, 1959, p. 470, 477; Kazanskiy et al., Preprint OIYaI, B-50-819, Dubna, 1961). These electrodes are broad copper plates arranged to form two systems on either side of the beam. The plates of one system are arranged symmetrically to the mid-plane of the magnet (vertical electrodes), and those of the other perpendicular thereto (radial electrodes). The signal  $V(\varphi)$  induced in the vertical electrodes is proportional to the change in the

Card 1/4

Investigation of the beam...

S/089/63/014/002/003/019  
B102/B186

radial phase oscillations of the beam are accompanied by the oscillations of the azimuthal density with the frequencies  $\Omega$  and  $2\Omega$ , where  $\Omega$  is the angular frequency of the phase oscillations. The amplitudes of these oscillations depend on  $\Delta M/b$ ,  $\Delta M$  being the initial energy spread and  $b$  the radial separatrix half-dimension. If  $\Delta M/b \approx 1$ , the oscillation with the frequency  $2\Omega$  vanishes; if  $\Delta M/b \ll 1$ , the damping of these oscillations takes place in 30 - 50 periods of the phase oscillations. The greater  $\Delta M/b$ , the more rapid is the damping. The same is true for the oscillations of the charge center. To the signal modulation with 40 - 50% depth observed at the synchrotron there corresponds a total initial energy spread of  $\sim 1.5\%$ . There are 10 figures.

SUBMITTED: April 4, 1962

Card 3/4

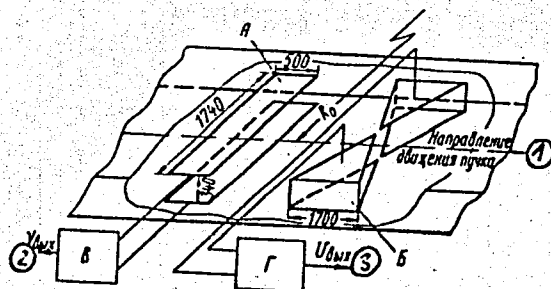


Investigation of the beam...

S/089/63/014/002/003/019  
B102/B186

Fig. 1. System of induction electrodes.

Legend: A - vertical electrodes, Б - radial electrodes, В - amplifier for the measuring system of the beam intensity, Г - transmitter of the radial beam position; (1) beam direction, (2)  $V_{out}$ , (3)  $U_{out}$ .



Card 4/4

L 3774-66 EWI(m) DIAAP GS

ACCESSION NR: AT5007949

S/0000/64/000/000/0788/0790

AUTHOR: Vagin, V. A.; Veksler, V. I.; Zubarev, V. M.; Kuznetsov, A. B.; Mukhin, S. V.; Petukhov, V. A.; Popov, V. A.; Rubin, N. B.; Stepanyuk, V. L.; Chekhlov, K. V.; Semenyushkin, I. N.

TITLE: Electrodynamic separator of antiprotons with 5 GeV/c momentum

SOURCE: International Conference on High Energy Accelerators. Dubna, 1963.  
Trudy. Moscow, Atomizdat, 1964, 788-790

TOPIC TAGS: high energy particle, antiproton, pion, particle interaction

ABSTRACT: The study of processes initiated by such particles as high-energy K-mesons and antiprotons is often determined by the possibility of separating these particles from an accompanying pi-meson background. The tremendous technical difficulties arising in the use of the electrostatic method of separation for obtaining pure beams of relativistic particles urgently dictate the necessity of seeking new means of separating particles. In 1956, V. I. Veksler and V. A. Petukhov proposed an electrodynamic method of separating particles according to masses. At the present time the high-energy laboratory of the Joint Institute of Nuclear Research is perfecting the application of an electrodynamic separator, creat-

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L 3774-06

ACCESSION NR: AT5007949

ed on the basis of this method, of antiprotons with momentum up to 5 GeV/c. The present report discusses the principle governing the operation of the electrodynamic separator. At the end of the acceleration cycle in the synchrophasotron the protons are recaptured into the acceleration regime at a frequency of high multiplicity and are subsequently directed against a target. The beam of secondary particles which then occurs possesses a corresponding high-frequency structure. The negatively charged particles that interest us are extracted by the magnetic field of the accelerator to the outside. Further, as a result of magnetic analysis the particles are resolved in a narrow interval of momenta, or pulses. A longitudinal distribution of the resolved particles begins to take place over a certain distance of their flight. The antiprotons being heavier particles retire from the pi-mesons. If the total length  $L$  of flight, counted from the target (for the case of relativistic particles) is equal to

$$L \approx \frac{\lambda}{2(\beta_1 - \beta_2)},$$

where  $\lambda$  is the operating wavelength of a multiple-acceleration system and  $\beta_1, \beta_2$  are respectively the velocities of the pi-mesons and antiprotons in units of the speed of light, then the lag of the antiprotons is exactly equal to the half wavelength  $\lambda/2$ . On the path of the particles at this place there is created a high-frequency transverse electric field with the same wavelength  $\lambda$  which is rigidly bound in

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L 3774-66

ACCESSION NR: AT5007949

phase with the voltage that is accelerating the beam at multiple frequency. In case of a suitable choice of the phase of the electric field the antiprotons and the pi-mesons will obtain angular deflections different in sign and can be spatially resolved further. The report discusses the composition of the electrodynamic separator of antiprotons at the high-energy laboratory, which consists of a multiple-acceleration system, deflecting device, and an ion-optical system. Also discussed are the separator's characteristics. The device can also be employed to resolve pi-mesons and antiprotons with smaller values of momenta and to separate K-mesons, if certain necessary conditions are fulfilled for the separation of antiprotons and K-mesons respectively:

$$(pc)_p \sim m_p c^2 \left[ \frac{L}{(2n+1)\lambda} \right]^{1/2};$$

$$(pc)_K \sim m_K c^2 \left[ \frac{L}{(2n+2)\lambda} \right]^{1/2}.$$

where the momenta of the antiprotons and K-mesons are respectively  $(pc)_p$ ,  $(pc)_K$ , and the rest-energy of an antiproton is  $m_p c^2$ , and  $n = 0, 1, 2, \dots$  Orig. art. has 3 figures:

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12  
L 3774-66  
ACCESSION NR: AT5007949

ASSOCIATION: Ob"yedinennyy institut yadernykh issledovaniy, Dubna (Joint Institute  
of Nuclear Research)

SUBMITTED: 26 May 64

ENCL: 00

SUB CODE: NP

NO REF SOVI: 003

OTHER: 000

PC  
Card 4/4

KAZANSKIY, G.S.; MIKHAYLOV, A.I.; RUDIN, N.B.; TSARENKOV, A.P.

Phase grouping of a beam of charged particles when captured in the  
process of acceleration in an OIIAI proton-synchrotron. Atom. energ.  
18 no.6:555-559 Je '65. (MIRA 18:7)

ACCESSION NR: AP4028958

8/0057/64/034/004/0676/0681

AUTHOR: Rubin, N.B.

TITLE: Hydrodynamic equations for a relativistic gas of charged particles in the first many fluid approximation

SOURCE: Zhurnal tekhnicheskoy fiziki, v.34, no.4, 1964, 676-681

TOPIC TAGS: hydrodynamics, relativistic hydrodynamics, plasma, relativistic plasma, relativistic plasma hydrodynamics

ABSTRACT: Hydrodynamic equations for a relativistic gas of charged particles are derived from the kinetic equation with collisions between unlike particles neglected (many fluid approximation) and the assumption of local Maxwellian distribution (first approximation). The hydrodynamic equations are derived twice: once with the interaction of a particle with its own radiation field neglected, and then with this interaction taken into account. The kinetic equation is taken from work of S.T.Bel-yayev and G.I.Budker (DAN SSSR,107,807,1956). The time derivative of the momentum is eliminated by means of the equation of motion of a charged particle of a given field, and the resulting equation is averaged over momentum space, both with and

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ACCESSION NR: AP4028956

without first multiplying by the momentum. The equation of continuity for the average velocity and an equation for the second moments of the velocity are thus obtained. The second velocity moments are evaluated by assuming a relativistic Maxwellian distribution of the velocities about their average value. When the resulting expression is substituted for the moments, the hydrodynamic equation of motion is obtained. The electromagnetic field tensor appearing in this equation must be regarded as describing not only an external field, but also the self-consistent field of the gas. Expressions are derived for the energy, pressure, heat content, and entropy. The whole calculation is repeated with radiation interaction included in the equation of motion. The resulting similar hydrodynamic equation contains extra terms of which some are quadratic in the fields and cubic in the velocities. "The author is grateful to A.B.Kuznetsov and other comrades in work for valuable discussions." Orig.art.has: 23 formulas.

ASSOCIATION: none

SUBMITTED: 05Apr63

DATE ACQ: 28Apr64

ENCL: 00

SUB CODE: PH

NR REF SOV: 005

OTHER: 001

Card <sup>2</sup>/<sub>2</sub>



RUBIN, N.B.

"Polyliquid" hydrodynamic equations of the first approximation for  
a gas of relativistic charged particles. Zhur.tekh. fiz. 34 no.4:  
676-681 Ap '64. (MIRA 1784)

KAZANSKIY, G. S.; KUZNETSOV, A. B.; MIKHAYLOV, A. I.; RUBIN, N. B.  
TSARENKOV, A. P.

Studying the formation of a beam of accelerated particles in a  
proton-synchrotron by means of induction electrodes. Atom.  
energ. 14 no.2:153-158 F '63. (MIRA 16:1)

(Synchrotron) (Electrodes)

RUBIN, N.I., inzh.

Multicolored grained floor tiles. Stroi. mat. no.11:9 N '65.  
(MIRA 18:12)

co

9

The transformation of ferri-ferous quartz of Krivoi-Rog into iron ore for smelting in the blast furnace. P. G. RUBIN AND A. N. POKHVISNEY. *Sci. Mag. Met. Cukhder Dnepropetrovsk* 1, 1-23 (1929). There are large quantities of a poor grade of Fe ore in the Krivoi-Rog region contg. 20-45% Fe. The possibility of concg. the ore by roasting and magnetic sepn. or by magnetic sepn. alone is discussed. In view of the fact that a large metallurgical plant is being planned at Krivoi-Rog, it is suggested that the method of first roasting and then concg. the ore magnetically should be preferred, since a large amt. of blast-furnace gas will be available for roasting the ore. S. I. MADORSKY

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

| PROCESSING AND PROPERTIES INDEX                                                                                                                                                                                                                                                                                                                       |  | E2                                                                                                                                                                                                                                                                                                                                                                                                         |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <p>The evaluation of limestone for the blast furnace. P. G. RUBIN AND YA. O. GADINSKII. <i>Sov. Mag. Met. Catheder Dnepropetrovsk</i> 1, 27-32(1929). The problem of choosing the proper kind of limestone to be used in the proposed metallurgical plant at Krivoi-Rog is discussed. A set of curves is given showing the relation of impurities</p> |  | <p>present in the limestone and of the distance of quarry from plant, to the cost of the flux per unit wt. On the basis of these curves it is possible to decide (a) at a given percentage of impurities, what is the limiting distance through which the flux could be economically hauled, and (b) at a given distance of the flux from the plant, what is the percentage of impurities permissible.</p> |  |
| S. L. MADORSKY                                                                                                                                                                                                                                                                                                                                        |  |                                                                                                                                                                                                                                                                                                                                                                                                            |  |
| ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION                                                                                                                                                                                                                                                                                                       |  |                                                                                                                                                                                                                                                                                                                                                                                                            |  |
| <p>631137-10C<br/>631137-10C</p>                                                                                                                                                                                                                                                                                                                      |  | <p>631137-10C<br/>631137-10C</p>                                                                                                                                                                                                                                                                                                                                                                           |  |

co 21

Experimental investigations on the coking of Kuznets coals (Kemerovo, Siberia).  
P. G. BURIN AND YA. O. GABINSKII. *Sci. Mag. Met. Cukhoder Dnepropetrovsk* 1, 33-79  
(1929).—An investigation was made of various samples of coal used for coking as to  
methods of prep. and heating the coal in the oven, and of the resulting coke. A study  
was also made of various coal mixts. suitable for coking. The coals are characterized  
by having a variable content of volatile matter and ash, the first varying from 20  
to 39%, and the second, from 6 to 17% in the dry coal. The cokability of the coal  
increases with rise in the amt. of volatile matter. This is just the opposite in com-  
parison with most European and Donetz coals. Coal contg. up to 21% volatile matter  
does not cake at all. Only coals which contain 33 to 37% give strong silvery regulus.  
The high ash content of the coal is due to the fact that mineral matter is distributed  
through the coal mass in minute particles, so that the coal cannot be enriched. In  
general, coke obtained from Kuznets field can be used in blast furnaces. S. L. M.  
A survey of Scottish coking and furnace coals. THOMAS GRAY, T. H. P. HENRIOT  
AND W. J. SKILLING. *Dept. Sci. Ind. Research, Fuel Research, Phys. Chem. Survey*  
*Natl. Coal Resources* No. 15, 160 pp (1921) E. H.

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

| 1000-10000 | 10000-20000 | 20000-30000 | 30000-40000 | 40000-50000 | 50000-60000 | 60000-70000 | 70000-80000 | 80000-90000 | 90000-100000 |
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BC

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

3RD AND 4TH ORDERS

B-1-1

Cokability and stability of Donetsk coal. P. G. RUBIN and Y. O. GABORUK (Sci. Mag. Met. Cath. Dnepropetrovsk, 1969, 1, 81-134).—Good coking coals gave a Maurice value of at least 120, medium 70-100, and poor less than 70. The stability ratios (of Maurice value of original coal to that after exposure to oxygen for 6-7 days) were, respectively, 100, 80-90, and 50-60%.

CHEMICAL ABSTRACTS.

ASB-3LA METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND ORDERS

3RD AND 4TH ORDERS

1ST AND 2ND ORDERS

3RD AND 4TH ORDERS

| PROCESS AND PROPERTIES INDEX                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |  |  |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |  |  |  |
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| TEST AND MEASUREMENTS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |  |  |  |  |  |  |  |  |  |  |  | PROPERTIES |  |  |  |  |  |  |  |  |  |  |  |  |
| TEST AND MEASUREMENTS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |  |  |  |  |  |  |  |  |  |  |  | PROPERTIES |  |  |  |  |  |  |  |  |  |  |  |  |
| <p>Investigation of mineral coals from Turkistan. P. O. RUBIN AND YA. O. GABIN-<br/>           211. <i>Sci. Mag. Met. Gokhonor Dnepropetrovsk</i> 1, 125-127 (1959). - Samples taken from<br/>           4 deposits of coal in Turkistan were investigated. A study was made of the chem.<br/>           nature of the coal and its calorific value, of its microstructure and of the effect of O<sub>2</sub><br/>           during storage. Lab. expts. were made to det. the cokability and methods of coking</p> <p>of samples. The results are tabulated. The investigation showed that as a fuel the<br/>           Turkistan coals lie between mineral coal and brown coal, and by their properties they<br/>           resemble more the brown coal. All the coals investigated are characterized by an ex-<br/>           ceptionally high calorific value. Coking of these coals at 1000° did not give a metal-<br/>           lurgical coke. However, at this temp. a large amt. of gas was given off which had a high<br/>           calorific value. On heating the coal to 800° a large yield of tar and of gas having a<br/>           calorific value up to 7500 cal. per cu. in. was obtained. The resulting semi-cake ma-<br/>           terial had no cohesion and in most cases was obtained in powd. form. S. L. M.</p> |  |  |  |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |  |  |  |
| <p>ASME-ISA METALLURGICAL LITERATURE CLASSIFICATION</p> <p>CLASSIFICATION</p> <p>CLASSIFICATION</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |  |  |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |  |  |  |



| 1ST AND 2ND ORDERS                                                                                                                                                                                                                                                   |  |  |  |  |  |  |  |  |  | 3RD AND 4TH ORDERS |  |  |  |  |  |  |  |  |  |
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| PROCESSES AND PROPERTIES INDEX                                                                                                                                                                                                                                       |  |  |  |  |  |  |  |  |  |                    |  |  |  |  |  |  |  |  |  |
| S                                                                                                                                                                                                                                                                    |  |  |  |  |  |  |  |  |  | 3                  |  |  |  |  |  |  |  |  |  |
| <p>Standardisation of the Physico-Mechanical Properties of the Donetsk Basin Cokes. P. Rubin. (Stal, 1936, No. 10, pp. 1-10). The author describes different methods for testing the physical properties of cokes now in use in the Donetsk Basin. (In Russian).</p> |  |  |  |  |  |  |  |  |  |                    |  |  |  |  |  |  |  |  |  |
| A.S.M.-S.L.A. METALLURGICAL LITERATURE CLASSIFICATION                                                                                                                                                                                                                |  |  |  |  |  |  |  |  |  |                    |  |  |  |  |  |  |  |  |  |
| 1ST AND 2ND ORDERS                                                                                                                                                                                                                                                   |  |  |  |  |  |  |  |  |  | 3RD AND 4TH ORDERS |  |  |  |  |  |  |  |  |  |
| 1ST AND 2ND ORDERS                                                                                                                                                                                                                                                   |  |  |  |  |  |  |  |  |  | 3RD AND 4TH ORDERS |  |  |  |  |  |  |  |  |  |

VODNEV, G.G.; SHELKOV, A.K.; DIDENKO, V.Ye.; FILIPPOV, B.S.; TSAREV, M.N.;  
ZASHVARA, V.G.; LITVINENKO, M.S.; MEDVEDEV, K.P.; MOLODTSOV, I.G.;  
LGALOV, K.I.; RUBIN, P.G.; SAPOZHNIKOV, L.M.; TYUTYUNNIKOV, G.N.;  
DMITRIYEV, M.M.; LEYTES, V.A.; LERNER, B.Z.; MEDVEDEV, S.M.; REVYAKIN,  
A.A.; TAYCHER, M.M.; TSOGLIN, M.E.; DVORIN, S.S.; RAK, A.I.; OBUKHOV-  
SKIY, Ya.M.; KOTKIN, A.M.; ARONOV, S.G.; VOLOSHIN, A.I.; VIROZUB, Ye.V.;  
SHVARTS, S.A.; GINSBURG, Ya.Ye.; KOLYANDR, L.Ya.; BELETSKAYA, A.F.;  
KUSHNEREVICH, N.R.; BRODOVICH, A.I.; NOSALEVICH, I.M.; SHTROMBERG, B.I.;  
MIROSHNICHENKO, A.M.; KOPELIOVICH, V.M.; TOPORKOV, V.Ya.; AFONIN, K.B.;  
GOFTMAN, M.V.; SEMENENKO, D.P.; IVANOV, Ye.B.; PEYSAKHZON, I.B.;  
KULAKOV, N.K.; IZRAELIT, E.M.; KVASHA, A.S.; KAPTAN, S.I.; CHERMNYKH,  
M.S.; SHAPIRO, A.I.; KHALABUZAR', G.S.; SEKT, P.Ye.; GABAY, L.I.;  
SMUL'SON, A.S.

Boris Iosifovich Kustov; obituary. Koks i khim. no.2:64 '55.(MLRA 9:3)  
(Kustov, Boris Iosifovich, 1910-1955)

EWI(1)/EWA(k)/EED/EWT(1)/EWT(m)/EPF(c)/EEC(k)-2/EPF(n)-2/EPR/EEC(t)/I/  
Pn-1/Po-4/Pf-4/Pr-4/Ps-4/Peb/Pi-4/  
S/0051/65/018/002/0326/0328  
ACCESSION NR: AP5005050

AUTHOR: Rautian, S. G.; Rubin, P. L.

TITLE: On certain features of gas lasers using mixtures of oxygen and noble gases

SOURCE: Optika i spek'troskopiya, v. 18, no. 2, 1965, 326-328

TOPIC TAGS: oxygen neon laser, oxygen argon laser, line broadening, frequency shift, laser action

ABSTRACT: The authors take issue with the explanations proposed by W. R. Bennett et al (Phys. Rev. Lett., v. 8, 470, 1962; Proc. Third Conference on Quantum Opt. Suppl. no. 1, 1962, pp. 24-62) for the anom-

neon and with a  
additional translational energy imparted to the

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L 34964-65  
ACCESSION NR: AP5005050

for an oxygen-neon system confirmed this assumption. The anomalous shift in  
generation frequency and the lack of generation in the  $3^3P_1 \rightarrow 3^3S_1$  transition is

"APPROVED FOR RELEASE: 08/22/2000

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reactions, photodissociation of molecules, and various other

mulas.

ASSOCIATION: None

SUBMITTED: 02Mar64

ENCL: 00

SUB CODE: EC, OP

NR REF SOV: 004

OTHER: 005

Card 2/2

APPROVED FOR RELEASE: 08/22/2000

CIA-RDP86-00513R001445810017-0"

RUBIN, PAVEL ROMANOVICH

~~RUBIN, PAVEL ROMANOVICH~~

[Improvement of forage crops; after the example of the Baraba Depression] Meliorativnoe uluchshenie kormovykh ugodii; na primere Barabinskoi nizmennosti. Moskva, Gos.izd-vo sel'khoz.lit-ry, 1957.  
94 p. (MIRA 10:9)

(Baraba Steppe--Pastures and meadows)

RUBIN, PAVEL ROMANOVICH

EPP  
.R93352

MELIORATIVNOYE ULUCHSHENIYE KOR-  
MOVYKH UGOДИY, NA PRIMERE BARABINSKOY  
NIZMENNOSTI /IMPROVEMENT OF FODDER  
CROP LAND/ MOSKVE, SEL'KHOZGIZ, 1957.  
94 P. ILLUS., DIAGRS., GRAPHS, MAPS.

STANKEVICH, Vyacheslav Semenovich; RUBIN, Pavel Romanovich

[Drainage and reclamation of swamps and marshy land] Osushenie i  
osvoenie bolot i zabolochennykh zemel'. Moskva, Gos. izd-vo  
selkhoz. lit-ry, 1956. 77 p. (MLRA 9:11)  
(Drainage) (Reclamation of land)



RUEEL', R.B.

Activity of the Sverdlovsk Speleological Section. Nov.kar.i spel.  
no.3:85-86 '63. (MIRA 16:10)

RUBIN, S.

POL. 3

1187

639,568 : 007,722.6

Polish S. Feigin J. Cyclohexanone-Formaldehyde Lacquer-Resin.

Cykloheksanowo-formaldehadowa żywica lakiernicza". Przemysl

Chemiczny. No. 7, 1954, pp. 365-368, 4 tabs.

Optimum conditions of condensation of cyclohexanone with formaldehyde are achieved by using in the reaction a mol relation of cyclohexanone to formaldehyde = 1 : 1.75. In this case, the quantity of catalyzer (30 per cent NaOH solution) should be 8.5 per cent of the weight of the cyclohexanone. From the resin obtained, two lacquers were prepared: type A requiring hardening at 170-185°C. for 30-35 minutes; it was made of 1 part (weight) of resin, 1.5 linseed or tung oil and 0.8 solvent (a mixture of cyclohexanone, lacquer petrol, benzene and butanol). Type B lacquer was fast-drying, made by dissolving the resin obtained in a solvent (methanol, acetone, etc.) with a low b.p. This lacquer can be used as a liquid wood polish.

62

RUBIN, S.

Varnish resins of the Super-Becacite type. S. Rubin and  
J. Feigin. *Przemysl. Chem.* 9, 237-40 (1933) (English sum-  
mary).—A discussion of synthesis, the properties, and the  
application of 100% phenolformaldehyde varnish of the  
Super-Becacite type, based on *p*-alkylphenol, is given.  
Gene A. Wozy

AS  
JSH

RUBIN, S., doktor sel'skokhozyaystvennykh nauk; ANDRIYENKO, A., kand.  
sel'skokhozyaystvennykh nauk

Long experience in fruit culture. Nauka i pared. op. v  
sel'khoz. 8 no.9:39-41 S '58. (MIRA 11:10)  
(Fruit culture)

RUBIN, S.

3

2447\* Cyclohexanone Formaldehyde Lacquer Resins. Cykloheksanonowo-formaldehydowa żywica lakiernicza. (Polish.) S. Rubin and I. Fejgin. *Przemysł chemiczny*, v. 10, no. 7, July 1934, p. 365-368.  
Optimum conditions for condensation; properties of lacquers based on cyclohexanone resins. Tables. 13 ref.

81

RUBIN, S.; FEJGIN, J.

Cyclohexanone-formaldehyde lacquer resins. p. 365. (PRZEMYSŁ CHEMICZNY, Vol. 10, No. 7, July 1954, Warszawa, Poland)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 3, No. 12, Dec. 1954, Uncl.

RUBIN, S.

Plan rechnogo transporta v 1938 g. [Plan for river transportation in 1938]. (Vodnyi transport, 1938, no. 2, p. 17-19). DLC: HE561.R8

Rechnoi transport za dve piatiletki (1929-1937 gg.) i zadachi rosta rechnykh perevozok. [River transportation during the two five-year plan, 1929-1937, and the problems of river shipping] (Vodnyi transport, 1938, no. 7, p. 10-14). DLC: HE561.R8

Tretii piatiletnii plan vodnogo transporta. [The third five-year plan for waterway transportation]. (Vodnyi transport, 1939, no. 4, p. 13-19). HE561.R8

SO: Soviet Transportation and Communication, A Bibliography, Library of Congress, Reference Department, Washington, 1952, Unclassified.

RUBIN, S. B.

Cand. Physicomath Sci.

Dissertation: "Certain Problems of the Dynamics of Mechanisms With Play in Kinematic Pairs."

12/1/50

Sci. Res. Inst. of Mechanics, Moscow Order of Lenin State U. imeni  
M. V. Lomonosov.

SO Vecheryaya Moskva  
Sum 71



RUBIN, S.B.

Effect of servomechanisms on the accuracy of solution for differential equations by means of differential analyzers. Trudy Sem. po toch.mash. no.6:18-34 '54.

(MIRA 7:11)

(Differential equations) (Servomechanisms) (Electronic calculating machines)

RUBIN, S. B.

123-1-736

Translation from: Referativnyy Zhurnal, Mashinostroyeniye, 1957,  
Nr 1, p.110 (USSR)

AUTHORS: Baranov, G. G., Rubin, S. B., Fil'kin, V. P.

TITLE: On the Theory of Through Centerless Grinding  
(K teorii skvoznogo bestsentrovogo shlifovaniya)

PERIODICAL: Sbornik: Tochnost' izgotovleniya sharikovykh i rolikovykh  
podshipnikov na avtomat. liniyakh. Moscow, AN SSSR, 1955,  
pp. 19-59

ABSTRACT: The authors analyse the shape of the regulating wheel  
providing maximum accuracy of the machined pieces, and  
the slippage of single points of the workpiece in relation  
to the regulating wheel during the through grinding.  
Because the work resting between the wheels is cone-shaped,  
the regulating wheel must have the shape of an enveloping  
surface of the cone family and not of a body (as previously  
assumed) of a tangent cylinder, which axis crosses the  
axis of this rotating body. In order to obtain maximum  
similarity of shape of the regulating wheel in relation  
to the profile desired in the work, the diamond point

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123-1-736

On the Theory of Through Centerless Grinding (Cont.)

attachment is turned in the vertical plane an additional angular amount (a turning device to shape the wheel to a hyperboloid-in-rotation profile is used on the subject machines). The magnitude of this angle is computed. The variability of the diameter of the regulating wheel (in terms of its length) creates variable speeds of the longitudinal travel of the work, which increase as the work travels thru the machine. This fact produces a play between the ground rings fed simultaneously between the wheels. This disruption increases with the angle at which the regulating wheel is set. In order to obtain a compact stock of workpieces, supports of ground rings are built up on one or both ends. Forces acting on the ground rings are examined, and the required resistance of the support is calculated. This force depends upon the condition of the face of the regulating and grinding wheel. A dull grinding wheel increases and a dull regulating wheel decreases the forces acting on the ring support.

Card 2/2

SOV/124-57-5-5209

Translation from: Referativnyy zhurnal. Mekhanika, 1957, Nr 5, p 16 (USSR)

AUTHOR: Rubin, S. B.

TITLE: An Evaluation of the Effect of Nonlinearity in the Investigation of a Transient Process in the Case of the Simplest Pneumatic System  
(Otsenka vliyaniya nelineynosti pri issledovanii perekhodnogo protsessa dlya prosteyshego sluchaya pnevmaticheskoy sistemy)

PERIODICAL: V sb.: Tochnost' izgotovleniya sharikovykh i rolikovykh podshipnikov na avtomat. liniyakh. Moscow, AN SSSR, 1955, pp 182-188

ABSTRACT: In connection with the investigation of pneumatic devices for measuring small displacements the paper examines the possibility of the linearization of the problem of a one-dimensional unsteady flow of gas without taking into account the friction of the gas in a pipeline connected to a reservoir of unlimited capacity. In the simplest instance, with a number of simplifying assumptions, the results derived from the linear approximation are compared with the results obtained from the initial nonlinear partial-differential equations. An evaluation is presented of the relative extent of error permissible

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SOV/124-57-5-5209

An Evaluation of the Effect of Nonlinearity in the Investigation of a Transient (cont.)

when the initial nonlinear equations are replaced by their linear approximations.

M. A. Ayzerman

Card 2/2

*ROBIN S.B.*

GORNLIK, Ya.M.; DOBROVOL'SKIY, M.B.; RUBIN, S.B.; KANEVSKAYA, M.D., red.;  
KARYAKINA, M.S., tekhn.red.

[Concise dictionary of terms and definitions in the fields of atomic  
energy, atomic weapons, and atomic defense] Kratkii slovar'  
nekotorykh terminov i opredelenii po atomnoi energii, atomnomu  
oruzhiyu i protivootomnoi zashchite. Moskva, Izd-vo DOSAAR, 1958.  
61 p. (MIRA 11:4)

(Atomic energy--Dictionaries)

9.4230  
9.3274

21436

S/109/61/006/001/015/023  
E140/E163

AUTHOR: Rubin, S.B.

TITLE: Certain theoretical questions of microwave phasemeters

PERIODICAL: Radiotekhnika i elektronika, Vol.6, No.1, 1961,  
pp. 125-136

TEXT: The article is concerned with certain theoretical questions on the precision of serrodyne-type phasemeters in which the frequency is changed by modulating the electron stream velocity in a TWT by a sawtooth voltage (Ref.1). A block diagram of the phasemeter is presented in Fig.1 where the following symbols are employed: 1 - klystron generator; 2 - travelling-wave tube; 3 - crystal mixer; 4 - ferrite decoupling isolators, matching elements, etc; 5 - a special waveguide insert; 6 - crystal oscillator; 7 - sawtooth voltage generator to modulate the TWT, synchronized by the crystal oscillator; 8 - phase inverter; 9 - IF-amplifier; 10 - two phase detectors with direct reading of phase and with multiplication by a factor of  $m$  of the measured phase shift; 11 - amplitude limiter; 12 -  $m$ 'th-harmonic filters.

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21436

S/109/61/006/001/015/023  
E140/E163

Certain theoretical questions of microwave phasemeters

The model of such a phasemeter was developed by A.M. Piltakyan, I.A. Khmel'nitskiy, A.M. Kuznetsov and the present author. The author considers successively parasitic phase excursions in the high-frequency channel and in the IF-channel. The most important conclusions drawn from the analysis, aside from those considered by the author to be obvious - the need for the best possible matching of all elements in the high-frequency channel, uniformity of gain of the travelling wave tube, high stability of the klystron oscillator. high quality of the amplitude limiting - are as follows: (1) It is necessary to ensure constant impedance of the crystal mixer over the entire band. (2) The principle used permits frequency translation at a high level of the basic signal. This is important in the presence of high losses to the fundamental signal in the portion of the circuit termed Q-gap, where the phase is shifted as a result of variation of the electrodynamic properties of a medium filling this gap. (3) The most deleterious harmonic arising in the IF-channel is that due to the image frequency.

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S/109/61/006/001/015/023  
E140/E163

Certain theoretical questions .....

(4) An amplitude limiter should be inserted in the precision phase detection channel. (5) Residual errors can be estimated from the formulae presented in the article.

formulae presented in the article.  
There are 5 figures and 5 references: 2 Soviet and 3 English.

SUBMITTED: March 1, 1960

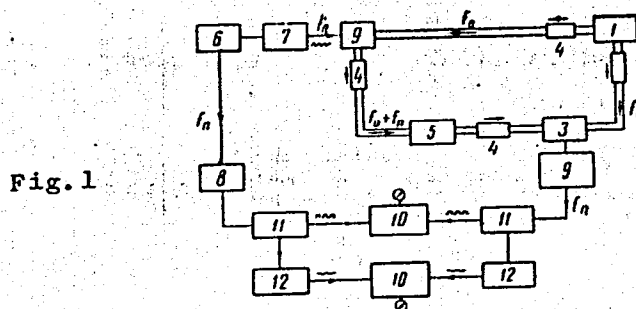


Fig. 1

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I 7728-66 EWT(1)/EPA(w)-2/EWA(m)-2 IJP(c) AT  
ACC NR: AP5025882 SOURCE CODE: UR/0057/65/035/010/1746/1748

AUTHOR: Rubin, S.B. <sup>41, 55</sup>

ORG: none

TITLE: On the self-consistent hydrodynamic problem of the motion of relativistic electrons in a uniform magnetic field

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 35, no. 10, 1965, 1746-1748

TOPIC TAGS: <sup>21, 44, 55</sup> relativistic electron, electron motion, hydrodynamic theory, <sup>21, 44, 55</sup> external magnetic field, controlled thermonuclear reaction, mathematic physics

ABSTRACT: The relativistic motion of a cylindrical shell of electrons in a uniform magnetic field is treated in the self-consistent hydrodynamic approximation. The calculations were undertaken because of the application of cylindrical shells of relativistic electrons in the "Astron" thermonuclear device. A general solution in cylindrical coordinates  $r, \theta, z$  is obtained for which the  $r$ - and  $z$ -components of the electron velocity vanish and the electron density and velocity depend only on  $r$ . Conditions are sought that this solution may obtain for  $b < r < a$  with vanishing electron density for  $r < b$  and  $a < r$ , and it is shown that this is possible only in the presence of an external field. Conditions are found that the required external electric field vanish; in this case the external field reduces to a uniform magnetic field. The final

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solution depends on three parameters, of which one determines the outer radius of the cylindrical shell of electrons, a second fixes the minimum electron velocity, and the third is associated with the total number of electrons per unit length of the shell; the thickness of the electron shell and the strength of the external magnetic field depend on all three parameters. The author thanks A.B.Kuznetsov and N.B.Rubin for valuable discussions. Orig. art. has: 20 formulas. 4455 4455

SUB CODE: EM, ME/ SUBM DATE: 04Nov64/ ORIG REF: 002/ OTH REF: 001

Card

2/2

RUBIN, S.B.; TSYTOVICH, V.N.

Nonlinear energy losses by a charge in a plasma. Zhur. tekhn. fiz.  
39 no.1:3-10 Ja '64. (MIRA 17:1)